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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,056	05/08/2001	Keith L. Eichhorn	2643-33B	2891

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EXAMINER

GOFF II, JOHN L

ART UNIT	PAPER NUMBER
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1733

DATE MAILED: 04/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/851,056

Applicant(s)

EICHHORN, KEITH L.

Examiner

John L. Goff

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15 and 17-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15 and 17-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This action is in response to Amendment B received on 2/13/03. The previous 35 U.S.C. 112 rejections have been overcome.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. (EP 626354) in view of Kume et al. (U.S. Patent 5,578,365).

Kamen et al. are directed to a method for applying a decorative metal foil to a glass substrate. Kamen et al. teach a method comprising applying an adhesive ink bead in a prescribed pattern to the substrate, curing the ink, and applying a foil with a decorative metal film to the ink pattern at an elevated temperature sufficient to bond the film to the ink (Page 2, lines 32-37). Kamen et al. teach using an ink comprising acrylic resins (Page 2, lines 53-55). Kamen et al. teach using a heated rubber roll to bond the metal foil to the ink at a temperature of at least 250 °F (Page 3, lines 30-35). It is noted that while not specifically recited one of ordinary skill in the art would readily appreciate the ink bead applied by Kamen et al. would have a rounded shape due to surface tension on the surface of the ink.

Kamen et al. are silent as to applying the ink using an X-Y plotter and curing the ink using air. Computer-driven plotters such as X-Y plotters are well known in the art for applying an ink bead in a prescribed pattern as shown for example by Kume et al. One of ordinary skill in

Art Unit: 1733

the art at the time the invention was made would have readily appreciated applying the ink bead taught by Kamen et al. in a prescribed pattern using an X-Y plotter as was well known in the art as shown for example by Kume et al. as only the expected results would be achieved. Kamen et al. suggest curing the ink in whatever manner is appropriate (Page 3, lines 24-25). The technique of curing acrylic inks at ambient conditions is well known and conventional in the art. Absent any unexpected results one of ordinary skill in the art at the time the invention was made would have readily appreciated air curing the acrylic ink.

Kume et al. are directed to a process for applying ink to a substrate to form a label. Kume et al. teach applying the ink using computer-driven printers such as X-Y plotters, ink jet printers, etc. (Column 8, lines 30-36).

It is noted Kamen et al. do not specifically recite the dimensions of the applied ink bead. However, determining the specific dimensions of the applied ink bead would be well within the ordinary skill and purview, e.g. for aesthetic reasons, of one in the art, and it would not require undue experimentation to determine these dimensions. Furthermore, the range of dimensions claimed by applicant, height of 0.8 mm – 1.1 mm and width of 2.0 – 5.0 mm, is a broad range such that a an ink bead with a height of 0.8 mm and a width of 5.0 mm is significantly different, i.e. flat, compared to an ink bead with a height of 0.8 mm and a width of 2.0 mm. Thus, the claimed range of dimensions does not define over any particular ink bead shape.

Regarding claim 17, Kamen et al. are silent as to a specific teaching on the hardness of the ink prior to applying the foil. However, one of ordinary skill in the art at the time the invention was made would have readily appreciated curing the ink to at least a tacky hardness,

Art Unit: 1733

e.g. hardness greater than 65% on a 0-100% durometer scale after 24 to 48 hours of curing, prior to applying the foil to ensure the ink does not move/deform during application of the foil.

4. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamen et al. and Kume et al. as applied above in paragraph 3, and further in view of Burzlaff et al. (U.S. Patent 4,484,970) and Preisler et al. (U.S. Patent 6,132,662).

Kamen et al. and Kume et al. teach all of the limitations in claims 18 and 19 except for a teaching on using aluminum or chrome foils. It is noted Kamen et al. are not limited to any particular type of metal foil (Page 3, lines 30-33). One of ordinary skill in the art at the time the invention was made would have readily appreciated using as the metal foil taught by Kamen et al. an aluminum or chrome foil as metal foils formed of these materials are well known hot stamping foils as shown for example by Burzlaff et al. and Preisler et al.

Burzlaff et al. are directed to a hot-stamping method for applying a metal foil to a container. Burzlaff et al. teach the most common type of metal foil is an aluminum foil (Column 4, lines 1-2). Preisler et al. are directed to hot-stamping a plastic part with a metal foil. Preisler et al. teach using as the metal foil a chrome foil (Column 2, line 29).

5. Claims 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirahara (U.S. Patent 4,053,344) in view of Kamen et al. (EP 626354) and Kume et al. (U.S. Patent 5,578,365).

Hirahara is directed to a process for printing a prescribed pattern on a non-paper material. Hirahara teaches a flat or round substrate made of glass, metal, etc. (Column 2, lines 28-31). Hirahara teaches printing an ink bead in a prescribed pattern on the substrate, air curing the ink until it is tacky, and applying a stamping foil with a printing onto the ink pattern at an elevated

Art Unit: 1733

temperature sufficient to bond the printing to the ink (Column 1, lines 53-54 and Column 2, lines 1-19 and 25-27).

Hirahara is silent as to applying the ink bead using an X-Y plotter and using an ink comprising acrylic resin. Computer-driven plotters such as X-Y plotters are well known in the art for applying an ink bead in a prescribed pattern as shown for example by Kume et al. One of ordinary skill in the art at the time the invention was made would have readily appreciated applying the ink bead taught by Hirahara in a prescribed pattern using an X-Y plotter as was well known in the art as shown for example by Kume et al. as only the expected results would be achieved. Inks comprising acrylic resin are well known in the art as suitable for use in a hot stamping process as shown above by Kamen et al. Absent any unexpected results one of ordinary skill in the art at the time the invention was made reading Hirahara in view of Kamen et al. would have readily appreciated using as the ink taught by Hirahara an ink comprising acrylic resin as suggested by Kamen et al.

It is noted Hirahara does not specifically recite the dimensions of the applied ink bead. However, determining the specific dimensions of the applied ink bead would be well within the ordinary skill and purview, e.g. for aesthetic reasons, of one in the art, and it would not require any undue experimentation to determine these dimensions. Furthermore, the range of dimensions claimed by applicant, height of 0.8 mm – 1.1 mm and width of 2.0 – 5.0 mm, is a broad range such that a an ink bead with a height of 0.8 mm and a width of 5.0 mm is significantly different, i.e. flat, compared to an ink bead with a height of 0.8 mm and a width of 2.0 mm. Thus, the claimed range of dimensions does not define over any particular ink bead shape.

Art Unit: 1733

The teachings of Kume et al. and Kamen et al. are shown above in paragraph 3.

Regarding claim 17, Hirahara is silent as to a specific teaching on the hardness of the ink prior to applying the foil. It is noted Hirahara suggest curing the ink until the ink is tacky and not deformable by touch (Column 2, lines 6-10). One of ordinary skill in the art at the time the invention was made would have readily appreciated curing the ink to at least a tacky hardness (hardness greater than 65% on a 0-100% durometer scale after curing for 24 to 48 hours) prior to applying the foil to ensure the ink does not move/deform during application of the foil.

6. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirahara, Kamen et al. and Kume et al. as applied above in paragraph 5, and further in view of Burzlaff et al. (U.S. Patent 4,484,970 and Preisler et al. (U.S. Patent 6,132,662).

Hirahara, Kamen et al., and Kume et al. teach all of the limitations in claims 18 and 19 except for a specific teaching on an apparatus for performing the stamping and using aluminum or chrome foils. It is noted Kamen et al. teach using a heated rubber roll to bond the metal foil to the ink at a temperature of at least 250 °F (Page 3, lines 30-35), and neither Hirahara nor Kamen et al. are not limited to any type of metal foil (Page 3, lines 30-33). Absent any unexpected results one of ordinary skill in the art at the time the invention was made reading Hirahara in view of Kamen et al. would have readily appreciated stamping the pattern to the ink as taught by Hirahara using the apparatus as suggested by Kamen et al. Furthermore, one of ordinary skill in the art at the time the invention was made would have readily appreciated using as the metal foil taught by Hirahara as modified by Kamen et al. and Kume et al. an aluminum or chrome foil as metal foils formed of these materials are well known hot stamping foils as shown for example by Burzlaff et al. and Preisler et al.

The teachings of Burzlaff et al. and Preisler et al. are shown above in paragraph 4.

Response to Arguments

7. Applicant's arguments with respect to claims 15 and 17-19 have been considered but are moot in view of the new ground(s) of rejection. Applicant argues neither Kamen et al. nor Hirahara teach a "raised bead" at least 0.8 mm in height. It is noted Kamen et al. and Hirahara do not specifically recite the dimensions of the ink bead. However, while not specifically recited one of ordinary skill in the art would readily appreciate the ink bead applied by Kamen et al. would have a rounded shape due to surface tension on the surface of the ink which would give the ink bead a raised and rounded shape. Furthermore, determining the specific dimensions of the applied ink bead would be well within the ordinary skill and purview, e.g. for aesthetic reasons, of one in the art, and it would not require undue experimentation to determine these dimensions. It is also noted the range of dimensions claimed, height of 0.8 mm – 1.1 mm and width of 2.0 – 5.0 mm, is a broad range such that a an ink bead with a height of 0.8 mm and a width of 5.0 mm is significantly different, i.e. flat, compared to an ink bead with a height of 0.8 mm and a width of 2.0 mm. Thus, the claimed range of dimensions does not define over any particular ink bead shape.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1733

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **John L. Goff** whose telephone number is **703-305-7481**. The examiner can normally be reached on M-Th (8 - 5) and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



John L. Goff
April 22, 2003



Michael W. Ball
Supervisory Patent Examiner
Technology Center 1700